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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,534	06/10/2005	Wayne D. Frasch	60227US	4137
23430	7590	08/04/2010		
GEORGE A LEONE, SR CITADEL PATENT LAW 9124 Gravelly Lake Drive SW SUITE 102 Lakewood, WA 98499			EXAMINER SHAW, AMANDA MARIE	
			ART UNIT	PAPER NUMBER
			1634	
			NOTIFICATION DATE	DELIVERY MODE
			08/04/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/538,534

Applicant(s)

FRASCH ET AL.

Examiner

Amanda Shaw

Art Unit

1634

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 17 July 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
 b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
 Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
 (a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
 (b) ☒ They raise the issue of new matter (see NOTE below);
 (c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
 5. ☒ Applicant's reply has overcome the following rejection(s): The terminal disclaimer filed on July 20, 2010 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US Patent 6,989,235 has been reviewed and is accepted. The terminal disclaimer has been recorded. The double patenting rejection over US Patent 6,989,235 has been withdrawn.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: none.

Claim(s) objected to: none.

Claim(s) rejected: 40, 42-47, 49-54 and 56-60.

Claim(s) withdrawn from consideration: none.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
 9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
 10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
 12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
 13. ☐ Other: _____.

/Amanda Shaw/
Examiner 1634/Stephen Kapushoc/
Primary Examiner, Art Unit 1634U.S. Patent and Trademark Office
PTOL-303 (Rev. 08-06)**Advisory Action Before the Filing of an Appeal Brief**

Part of Paper No. 20100728

Continuation of 3. NOTE: The proposed amendment to claim 40 raises new issues because the scope of the claims has changed. For example the claims now require exposing nonpolarized white light to the nanoparticle, when previously the claims only required exposing light to the nanoparticle. Additionally claim 40 now requires that the first surface of the nanoparticle scatters a first polarized wavelength of the non polarized white light for the subset of photons aligned with the first axis, when previously the claim only required that the first surface of the nanoparticle scatters a first polarized wavelength of light when the nanoparticle is in a first position. Claim 40 also now requires observing alternating first and second polarized wavelengths of the non polarized white light as rotation brings each polarized wavelength into alignment with the polarizer, which was not previously required. Finally claim 40 now requires disposing a detection DNA strand between the nanoparticle and the molecular structure. While this limitation was previously present in claims 46 and 53 (which have both been cancelled in the proposed amendments) it is noted that claims 42-45, and 49-52 have never previously depended from a claim which required a DNA detection strand. Additionally the proposed amendment to claim 60 raises new issues because the scope of the claims has changed. For example the claims now require exposing nonpolarized white light to the nanoparticle, when previously the claims only required exposing white light to the nanoparticle. Additionally claim 60 now requires scattering a first polarized wavelength of the nonpolarized white light for the subset of photons aligned with the first axis, when previously the claim recited scattering a first wavelength of the light when the nanoparticle is in a first position of rotational motion. Further the claims now require a polarizing filter in a fixed position that allows only the first polarized wavelength of light to pass when the nanoparticle is aligned with the first axis and only the second polarized wavelength of light to pass when the nanoparticle is aligned with the second axis. Thus in view of the proposed amendments a new search aimed at identifying the prior art most relevant to the claims as amended and consideration of that prior art with regard to whether it anticipates or renders obvious the claimed invention is required. Additionally the proposed claims raise the issue of new matter because the specification does not teach exposing "non polarized" white light to the nanoparticle. The Applicants have not pointed to a specific page of the specification which provides support for the use of "non polarized" white light and the examiner was not able to find support for this after performing a quick search of the specification. Regarding negative limitations MPEP 2173.05(i) requires that any negative limitation or exclusionary proviso must have basis in the original disclosure. For these reasons the proposed amendments do not place the application in better form for appeal by materially reducing or simplifying the issues for appeal.

Continuation of 11. does NOT place the application in condition for allowance because: Regarding the 103 rejections the Applicants argue that in the instant application, the incident light source used to illuminate the sample is NOT polarized, but is non polarized white light. This argument is moot in view of the non entry of the after final amendment.

Finally the Applicants argue that none of the references teach the limitation which requires disposing a detection DNA strand between the nanoparticle and the molecular structure. The Applicants argue that the combination of Yasuda and Felder is not permitted because the references teach away from each other and the combination destroys the intended functions of the references. This argument pertains both to the pending claims and the amended claims. This argument has been fully considered but is not persuasive. In the instant case the purpose of Yasuda is to detect F1-ATPase rotation and adding a detection DNA strand between the nanoparticle and the molecular structure would not interfere the being able to detect F1-ATPase rotation. Further the purpose of Felder is to detect DNA targets and conjugating a detection DNA strand to a rotating F1-ATPase would not prevent detection of the DNA target. For this reason the Applicants arguments are not persuasive.